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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,557

06/17/2005

Grant Berent Jacobsen

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

RABAGO, ROBERTO

ART UNIT

PAPER NUMBER

1713

MAIL DATE

DELIVERY MODE

05/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/539,557

Applicant(s)

JACOBSEN ET AL.

Examiner

Roberto Rábago

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,10-12,14-24,27,28 and 30-34 is/are rejected.
- 7) ☒ Claim(s) 6-9,13,25,26 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. Claims 1, 2, 10-12, 14-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shih (US 2003/0225225).

The reference discloses in Examples 1-3 ethylene polymerization and copolymerization comprising a catalyst made by contacting a silica support with an iron complex and with a Ti(II) metallocene, then with an organoaluminum compound. The examples state at [0377] and [0380] that the slurry of support material was treated with the iron complex and metallocene, but does not state whether the addition was made sequentially or simultaneously. It would appear that the two components were added sequentially because they have been serially listed and there is no disclosure that the two components were added simultaneously. However, even if applicants can show that the reference catalyst was made by contacting the support with the transition metal complexes simultaneously, the record contains no basis to conclude that the reference product would be different from those made according to the broad scope of the claims. If any differences can be shown, they would be minor and obvious.

Applicants are reminded of the following regarding claims drafted as product-by-process: (MPEP 2113)

PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

"The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Applicant's arguments filed 2/20/2007 have been fully considered but they are not persuasive. Applicants argue that the claims are not anticipated by the applied reference examples because the amended claims include a new product-by-process limitation wherein the support is treated with a transition metal component before contact with (a) and (b). However, contrary to applicants' assertion, the reference example does not state that the two transition metal components were contacted with the support simultaneously. As stated above, the contacting method appears to be sequential; however, even if the method was simultaneous, there is no basis to conclude that such a step would exclude the reference compositions from the broad scope of the claims. It is noted that the claims are otherwise unlimited regarding the method of making the catalyst, and also unlimited as to any structural, chemical, or reactive features resulting from the stated sequential process of contacting the support with the transition metal compounds.

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2. Claims 21-23, 24, 27 and 30-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Wenzel et al. (US 2002/0119890).

The reference discloses in claims 1-10 the making of a polymerization catalyst comprising spray drying a mixture of first and second separately supported transition metal compounds, at least one of which is a metallocene, in combination with borate salt activator (see claim 8). Silica is stated to be the preferred support ([0280], [0282]), and gas phase conditions are stated to be preferred ([0294]). The first supported catalyst provides the claimed first treatment of support with transition metal compound, and combination with the second supported catalyst comprising transition metal compound and cocatalyst provides components (a) and (b) in the overall spray-dried catalyst.

Applicant's arguments filed 2/20/2007 have been fully considered but they are not persuasive. Applicants incorrectly assert that claim 21 is equivalent to claim 6 written in independent form. Claim 6 requires the metallocene structure of claim 1 as transition metal compound (a), while claim 21 is entirely open-ended regarding the transition metal compound (a). Accordingly, the status of claims 6 and 7 is not relevant to that of claim 21. Applicants further argue that the catalyst of the reference is different from that of the claims, but have not explained how the specific language of the claims would exclude the reference composition. Instant claim 21 is drafted in an exceedingly broad and open-ended manner regarding how the transition metal components are present in the overall catalyst system, and does not even recite that two transition metal compounds are deposited directly on the same quantity of support. Given such breadth, the reference composition is within the scope of the claims.

***Claim Rejections - 35 USC § 103***

3. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shih (US 2003/0225225).

The parent claims are discussed with respect to this reference above. One of ordinary skill in the art would be motivated to use the reference process under gas phase conditions because such use is repeatedly recommended, for example at [0319].

4. Claims 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenzel et al. (US 2002/0119890).

The parent claims are discussed with respect to this reference above. One of ordinary skill in the art would be motivated to use either a metallocene or an iron-containing transition metal compound as one of the two supported catalysts because such use is recommended in claim 10 and at [0264].

5. Claims 6-9, 13, 25, 26 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

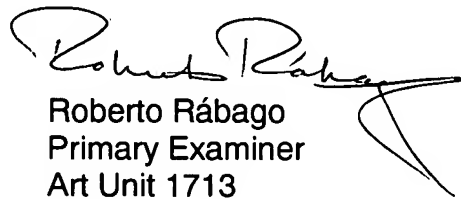
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Roberto Rábago  
Primary Examiner  
Art Unit 1713

RR  
May 6, 2007